Appl. No. 10/785,088
In re Kroppe
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## **Amendments to the Specification:**

Please replace paragraph beginning on page 10, line 7 of the present application with the following amended paragraph:

The ECU 58 transmits control signals to the variable control valves 21a, 21b, 24 and 41 based on input signals from one or more sensors indicative to at least one vehicle parameter and/or at least one operating parameter of the integrated control system 18 as a control input. In accordance with the preferred embodiment of the present invention, the ECU 58 receives signals from sensors [[74]] 72, 74 and 76 indicative to a speed difference between inputs and outputs of the clutches 20a, 20b and 22, a sensor 78 indicative to a position of the piston 44 within the cylinder 42, a sensor 80 indicative to a speed of the piston 44 within the cylinder 42, a vehicle speed sensor 82, a vehicle lateral acceleration sensor 84, a yaw rate sensor 86, and a steering angle sensor [[86]] 88. It will be appreciated that any other appropriate sensors indicative to various vehicle parameters may be employed. The ECU 58 also receives signals from a pressure sensor 62 providing a signal indicative to a fluid pressure in the supply passageway 47, a pressure sensor 64 providing a signal indicative to a fluid pressure supplied to the left clutch 20a through the control valve 21a, a pressure sensor 66 providing a signal indicative to a fluid pressure supplied to the lock-up clutch 22 through the control valve 24, a pressure sensor 68 providing a signal indicative to a fluid pressure supplied to the right clutch 20b through the control valve

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21b, and a pressure sensor 70 providing a signal indicative to a fluid pressure supplied to the hydraulic actuator 40 through the control valve 41. As shown in Fig. 3, the ECU 58 may be connected to a vehicle electronic network, such as a controlled area network (CAN).

Please replace paragraph beginning on page 12, line 2 of the present application with the following amended paragraph:

However, when the ECU 58 determines that vehicle torque control is required, one or more of the control valves 21a, 21b and 24 are moved to a position that provides certain hydraulic pressure to the clutch actuators engage corresponding clutches [[21a]] 20a, [[21b]] 20b and [[24]] 22 to selectively and variably control the drive torque transmitted therethrough as determined by the ECU 58 in response to the signals from the sensors 72-76 and 82-[[80]]88. Similarly, when the ECU 58 determines that roll control is required, the control valve 41 is moved to a position that provides certain resistance to the movement of the piston 44 within the cylinder 42 as determined by the ECU 58 in response to the signals from the sensors 78-[[86]]88.